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| Use the Van de Walle text and the TN Math Standards to complete this assignment. If other resources are used in addition, please cite with the URL or bibliographic information. |

*Chapter 12 – Developing Strategies for Addition and Subtraction Computation*

1. What should a teacher’s goal be for students when teaching addition and subtraction? p. 247
2. What is a balanced approach to mathematics fluency as presented in the embedded video on page 249. <https://www.youtube.com/watch?v=ZFUAV00bTwA>
3. Define **compatible sums.** p. 251
4. When adding 10 on a hundreds chart, what would be the most efficient strategy that demonstrates place value understanding? Explain. p. 253 Watch the 40 second video as needed. <https://www.youtube.com/watch?v=cNLP8JylBvY>
5. Three Types of Computational Strategies p. 255-257

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|  | Description |
| Direct Modeling |  |
| Invented Strategies |  |
| Standard Algorithms |  |

1. What are the 7 benefits of invented strategies? p. 256
2. Why should teachers delay teaching standard algorithms? p. 258
3. Is mathematics an easier subject to learn for English language learners? Explain. p. 258
4. Read the list of factors to keep in mind for creating a supportive environment for student use of invented strategies on page 259. Which one of these will be the one you will have to work hardest on in your future classroom? Explain.
5. Watch the 3 videos embedded on page 259 of the text that introduce three common types of invented strategies. Briefly describe each strategy.

* Split Strategy –
* Jump Strategy –
* Shortcut Strategy -

1. How can empty number lines and bar diagrams be used to help model students’ thinking?
2. There are several invented strategies for addition and subtraction detailed on pages 261-267. Skim over all and choose one to describe below (refer to the associated figure in your description). What made you choose that strategy?
3. Why should teachers use the terms “regrouping” or “trading” instead of “borrowing” and “carrying in mathematics? p. 267
4. What are the 2 things to remember in teaching the standard algorithm for addition? p. 267
5. What challenges did Talecia have when she was explaining how she recorded how she solved 34 + 57. Video on page 269.
6. What should the progression be when teaching the standard algorithm for subtraction? (3 levels of instruction). p. 269